

Comparison of JAXA and RSS Calibration of AMSR

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September 14, 2005

Data Sets Used

- JAXA 1b orbit files
- RSS 2a orbit files (only un-resampled data)
- Data from March 1, 2005 (1 day)
- Used only section of scan line common to both data sets (middle 196/392 prints)
- Imaged on $\frac{1}{4}$ degree grid
- Descending/Ascending passes gridded separately

Scan Averaged Tb

Channel	V		H	
	1b	2a-1b	1b	2a-1b
6 GHz	203.1	-0.69	143.7	-0.66
10 GHz	205.1	-0.31	147.2	-0.44
18 GHz	218.5	-1.06	169.3	-1.56
23 GHz	232.2	-1.48	194.9	-2.40
36 GHz	226.1	+0.59	185.0	-0.40
89 GHz (b)	246.8	+2.61	224.7	+1.58

Computed from all time matched
asc/dsc scans from 3/1/2005

Avg Scan to Scan Variation (global)

Channel	V		H	
	1b	2a	1b	2a
6 GHz	.31K	.31	.46K	.46
10 GHz	.32	.33	.50	.51
18 GHz	.36	.37	.56	.57
23 GHz	.31	.32	.52	.53
36 GHz	.38	.39	.63	.64
89 GHz (b)	.53	.57	.68	.69

Computed from all time matched
asc/dsc scans from 3/1/2005

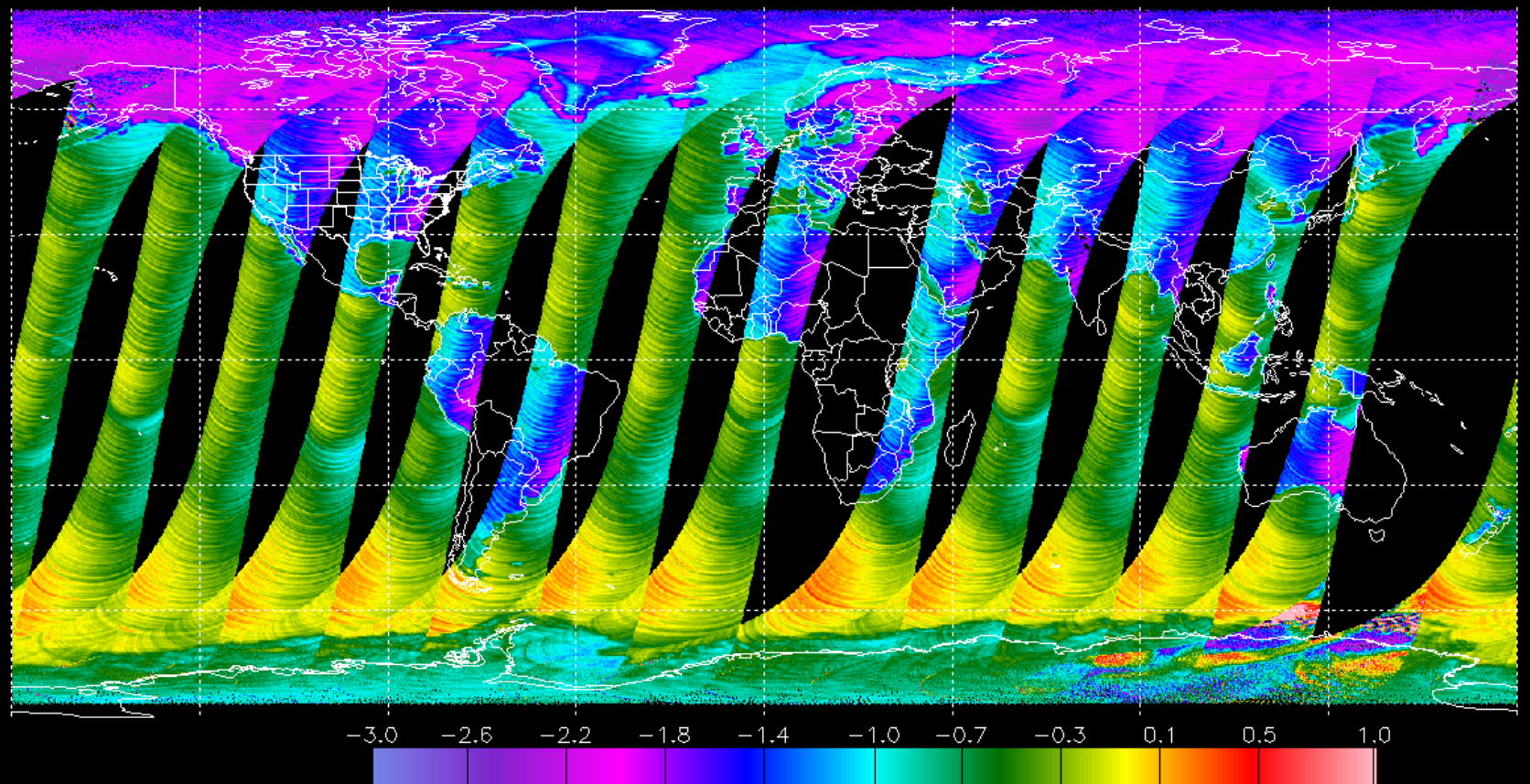
Avg Scan to Scan Variation (ocean only)

Channel	V		H	
	1b	2a	1b	2a
6 GHz	.09K	.09	.08K	.08
10 GHz	.11	.12	.12	.13
18 GHz	.20	.20	.28	.28
23 GHz	.22	.23	.38	.39
36 GHz	.25	.25	.46	.46
89 GHz (b)	.41	.46	.61	.63

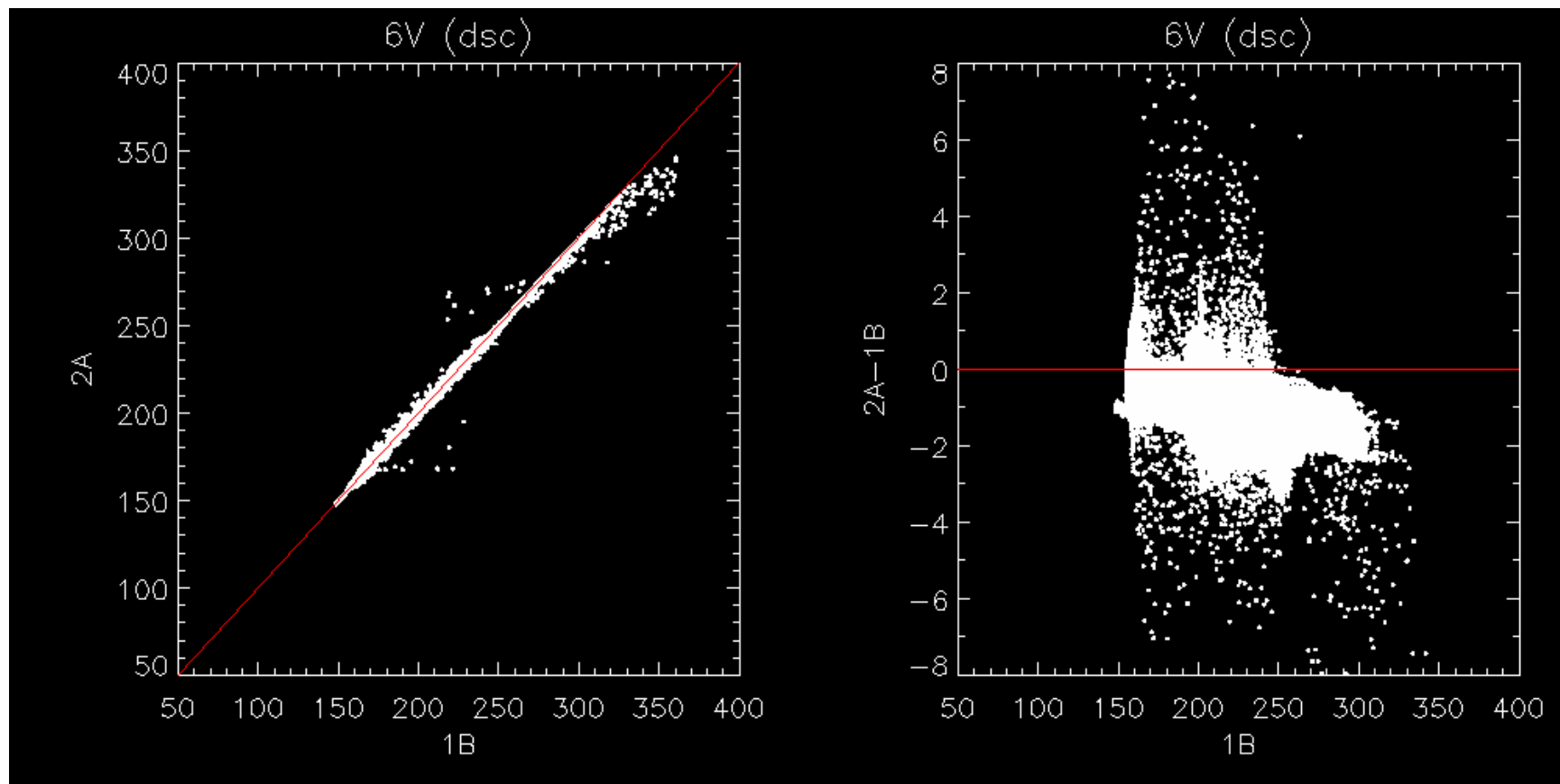
Limited to +/- 60 deg oceans

6V

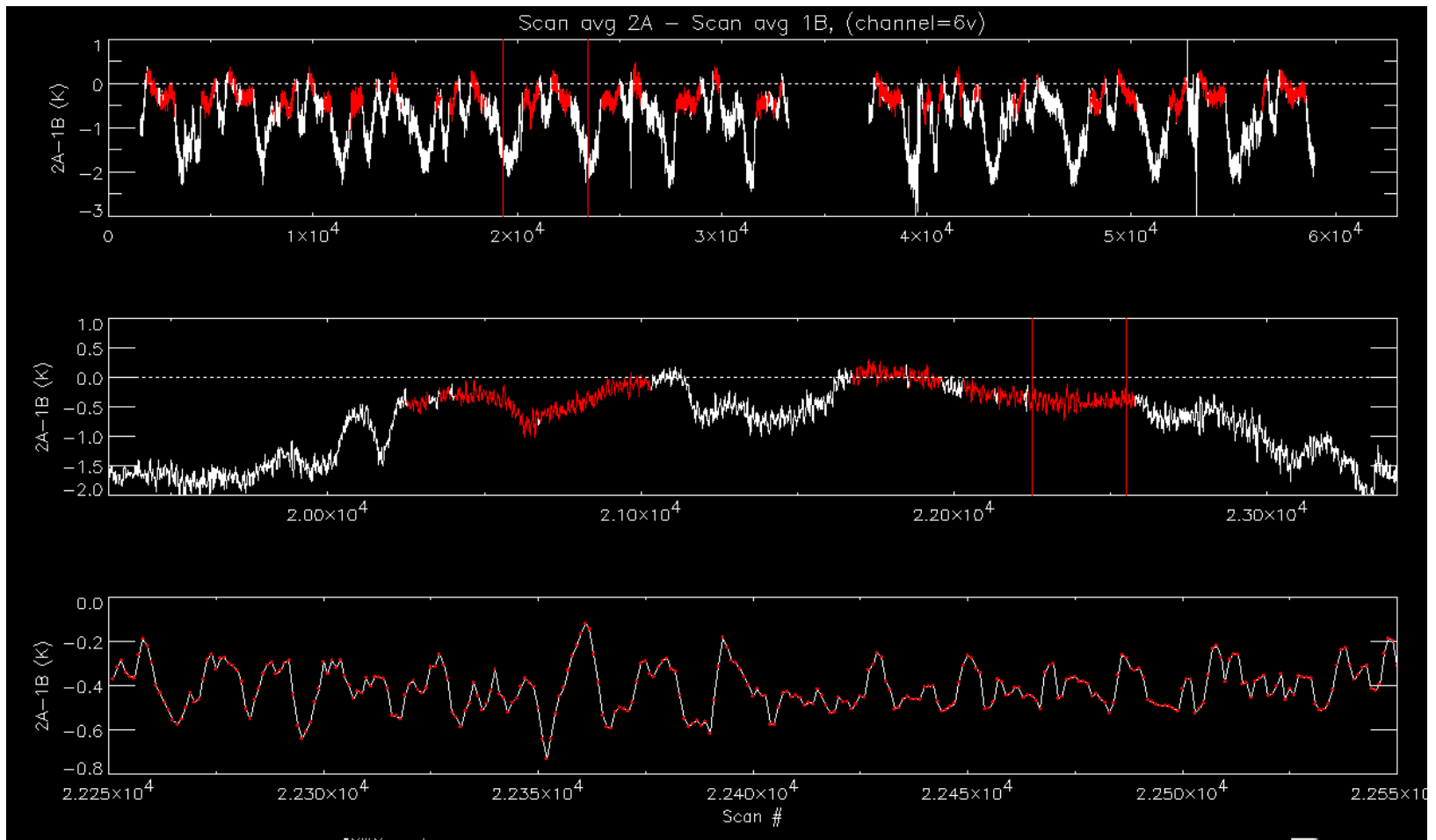
6v (dsc)



6V



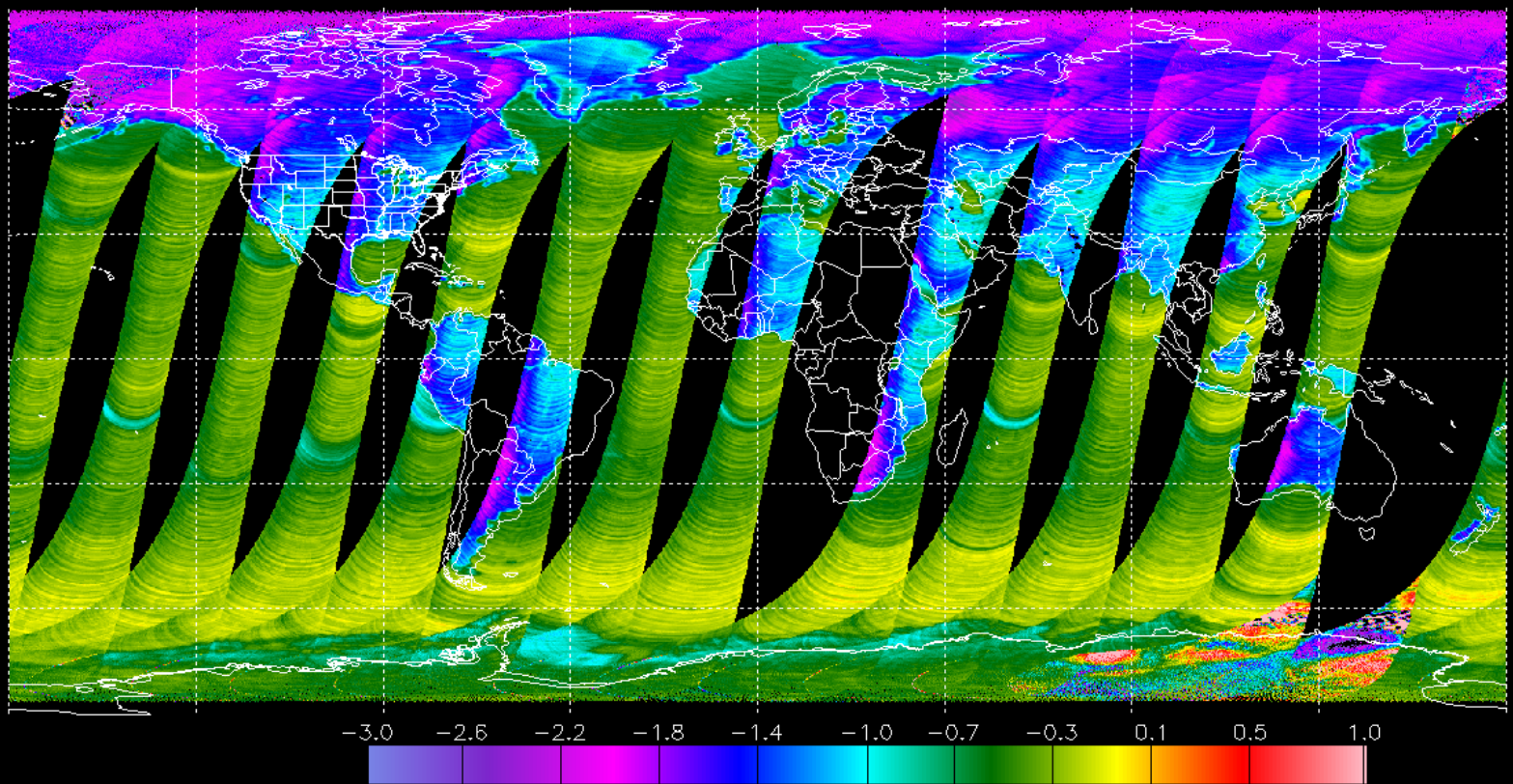
Scan Averaged Differences (6V) (asc/dsc)



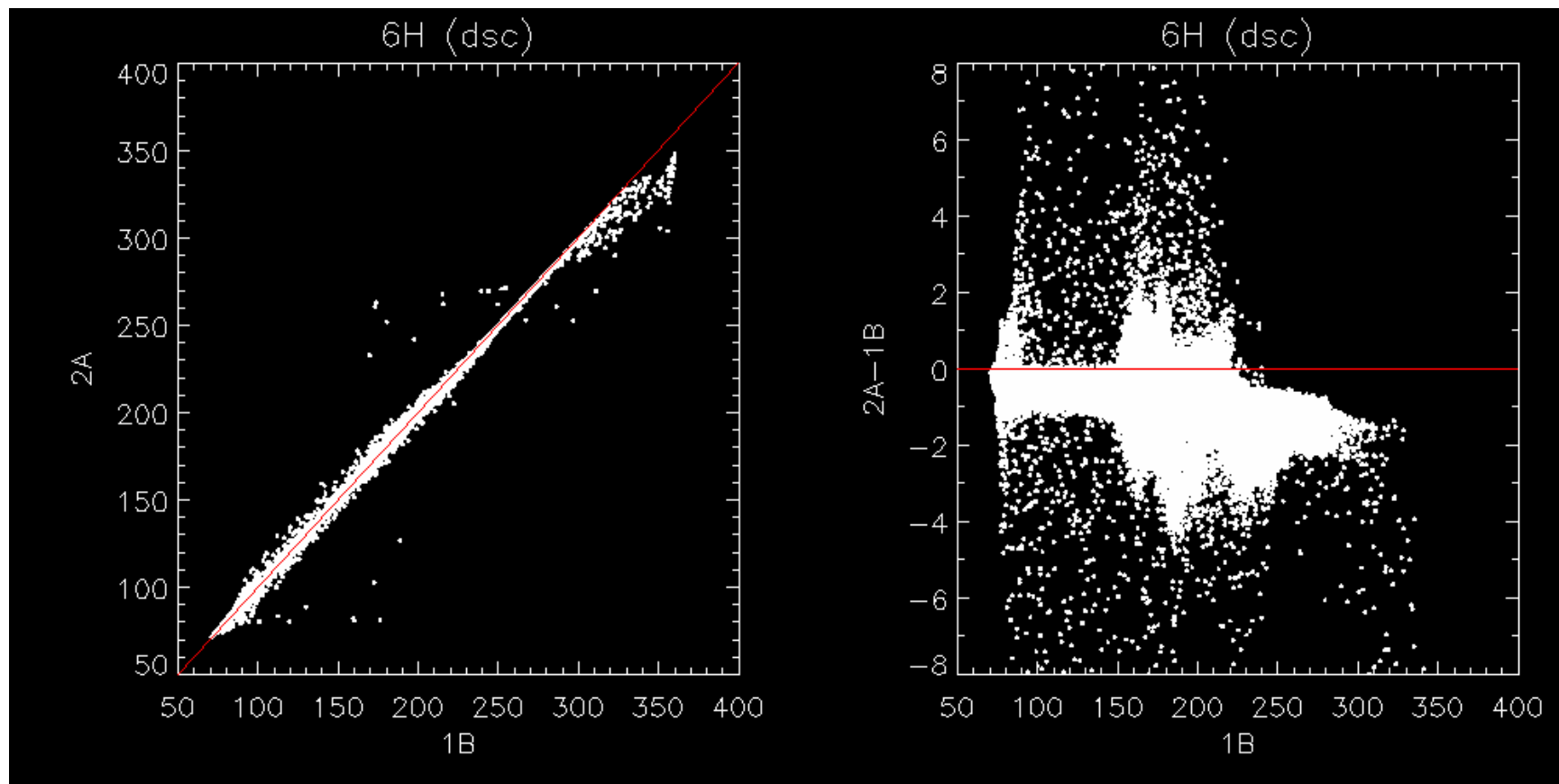
Red is ocean scans (+-60, tb_6v < 180)

6H

6h (dsc)

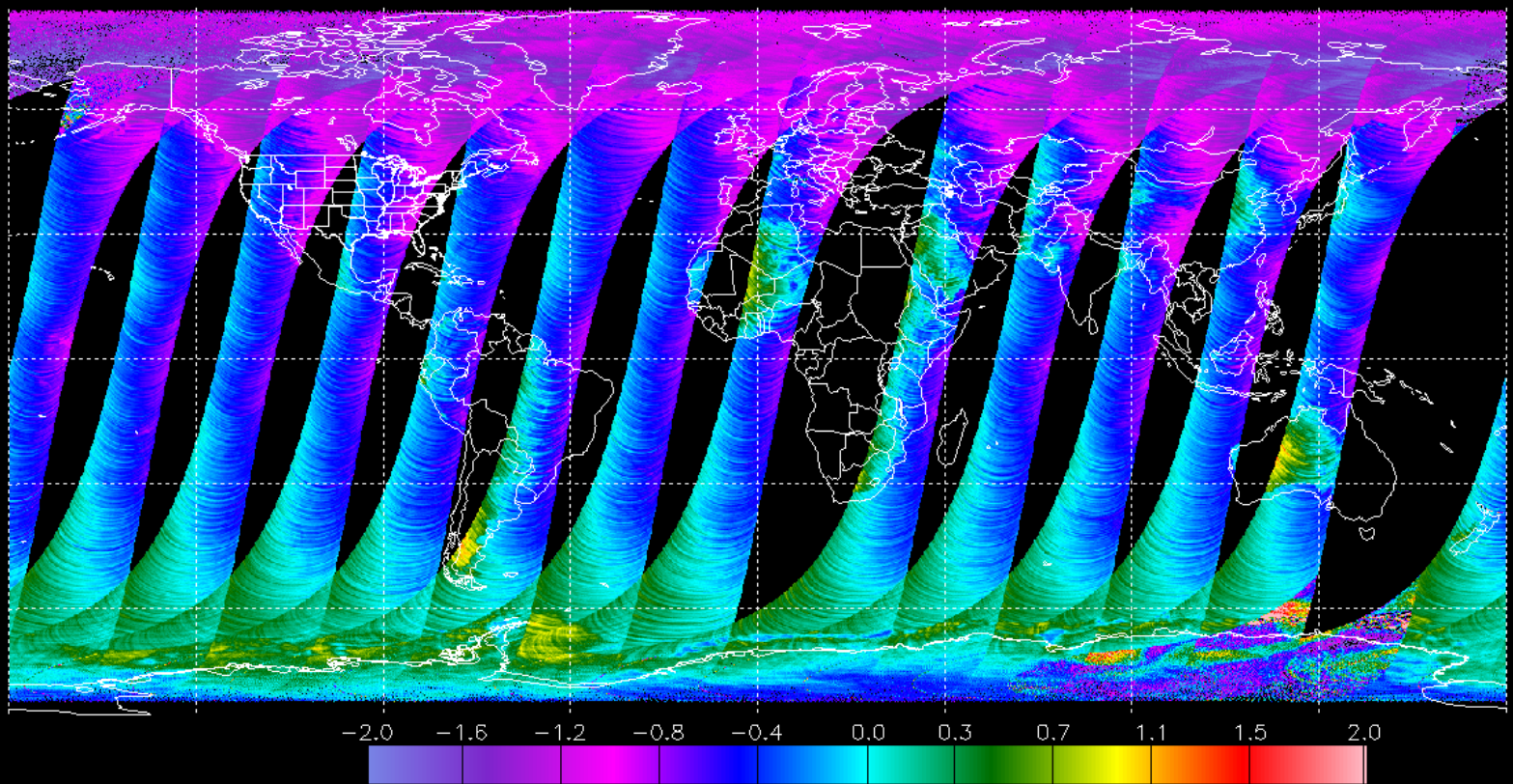


6H

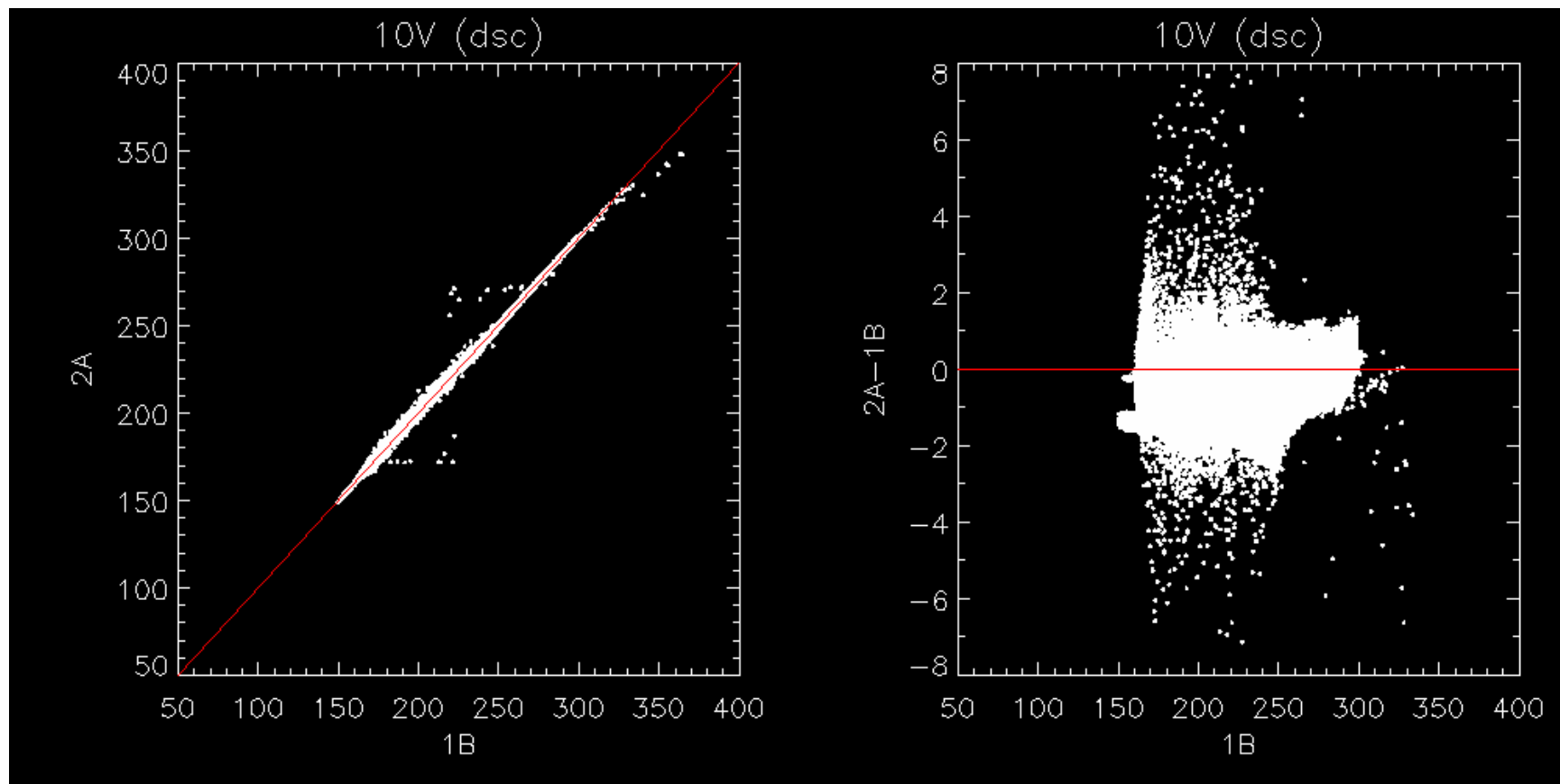


10V

10v (dsc)

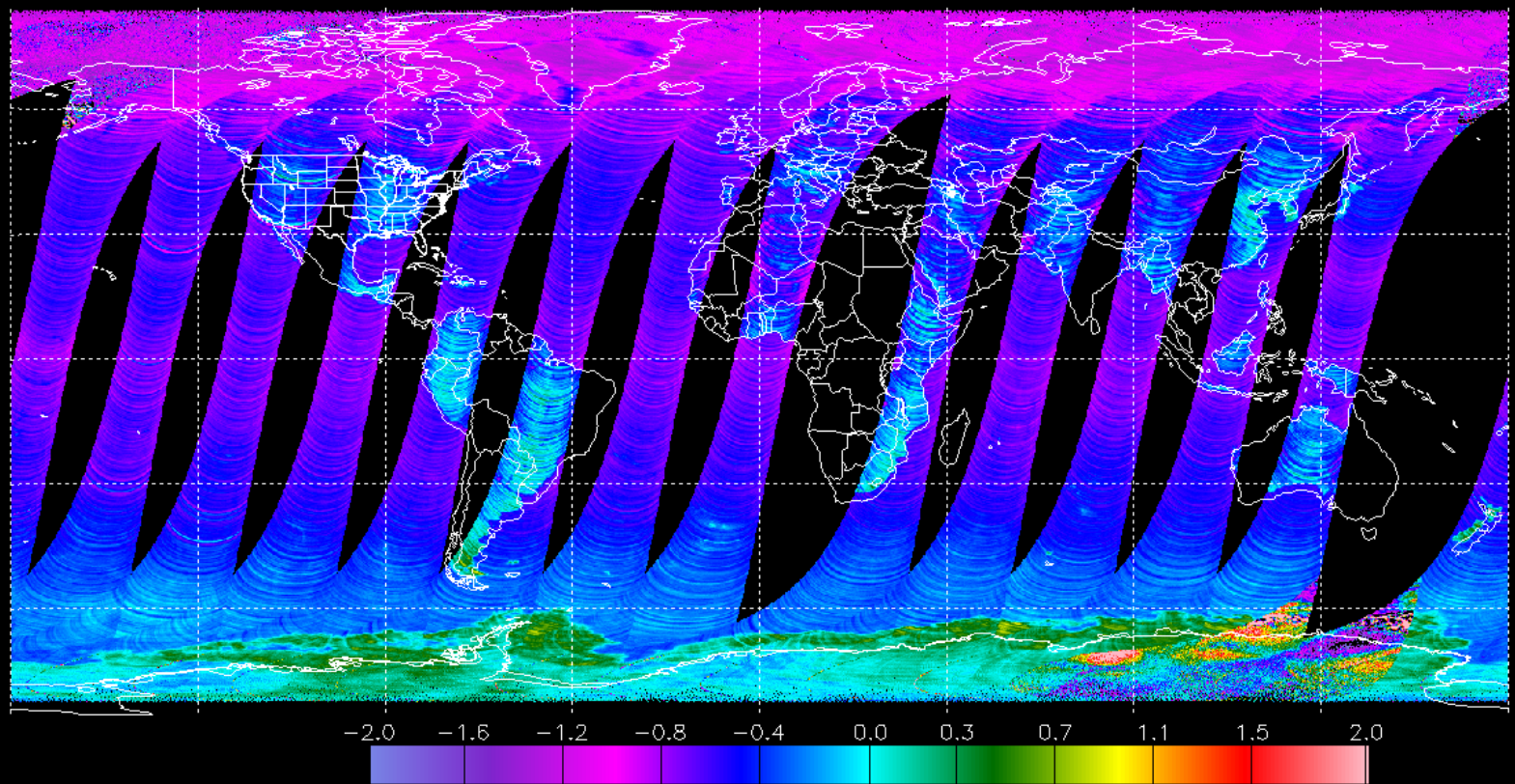


10V

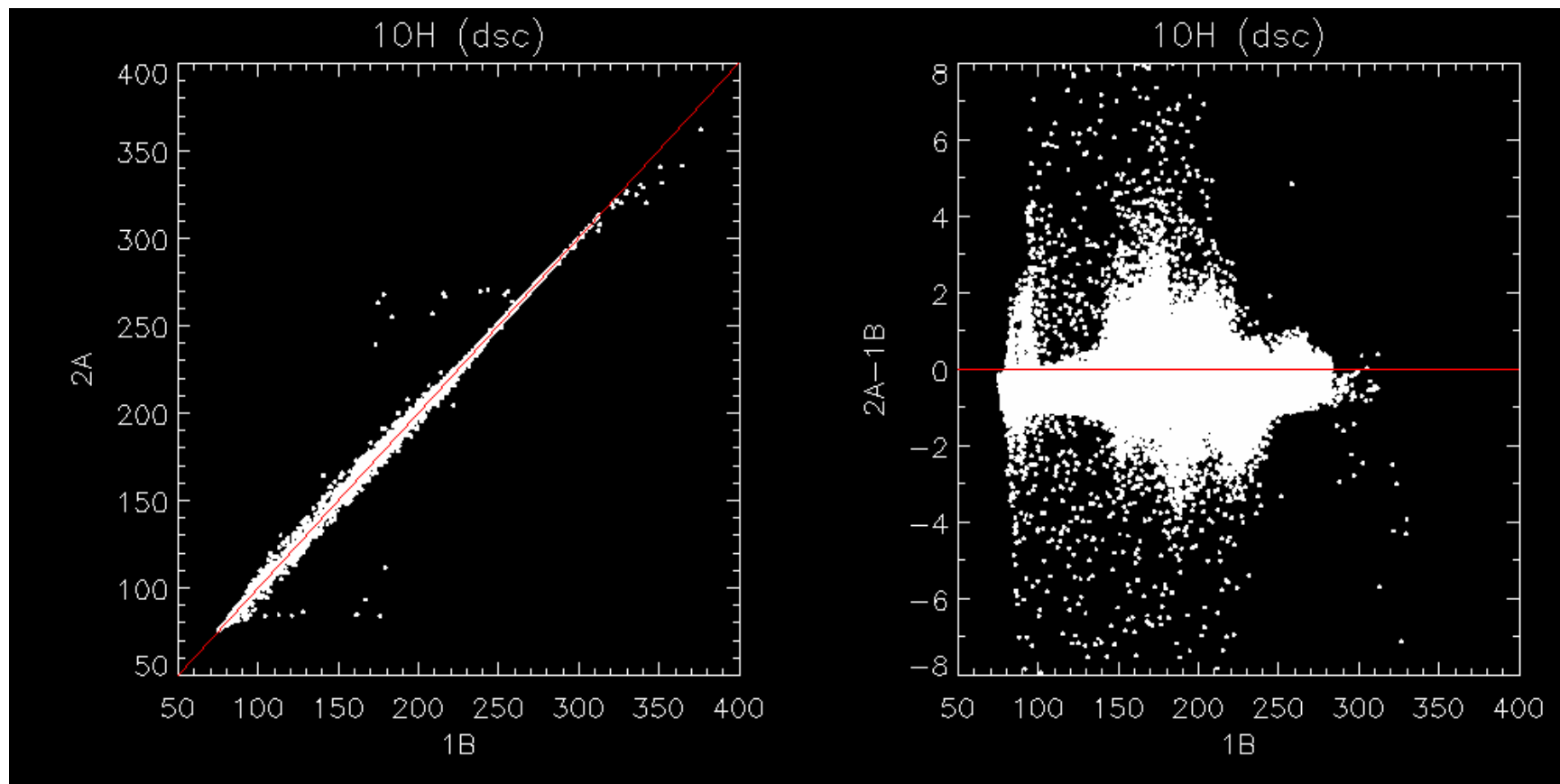


10H

10h (dsc)

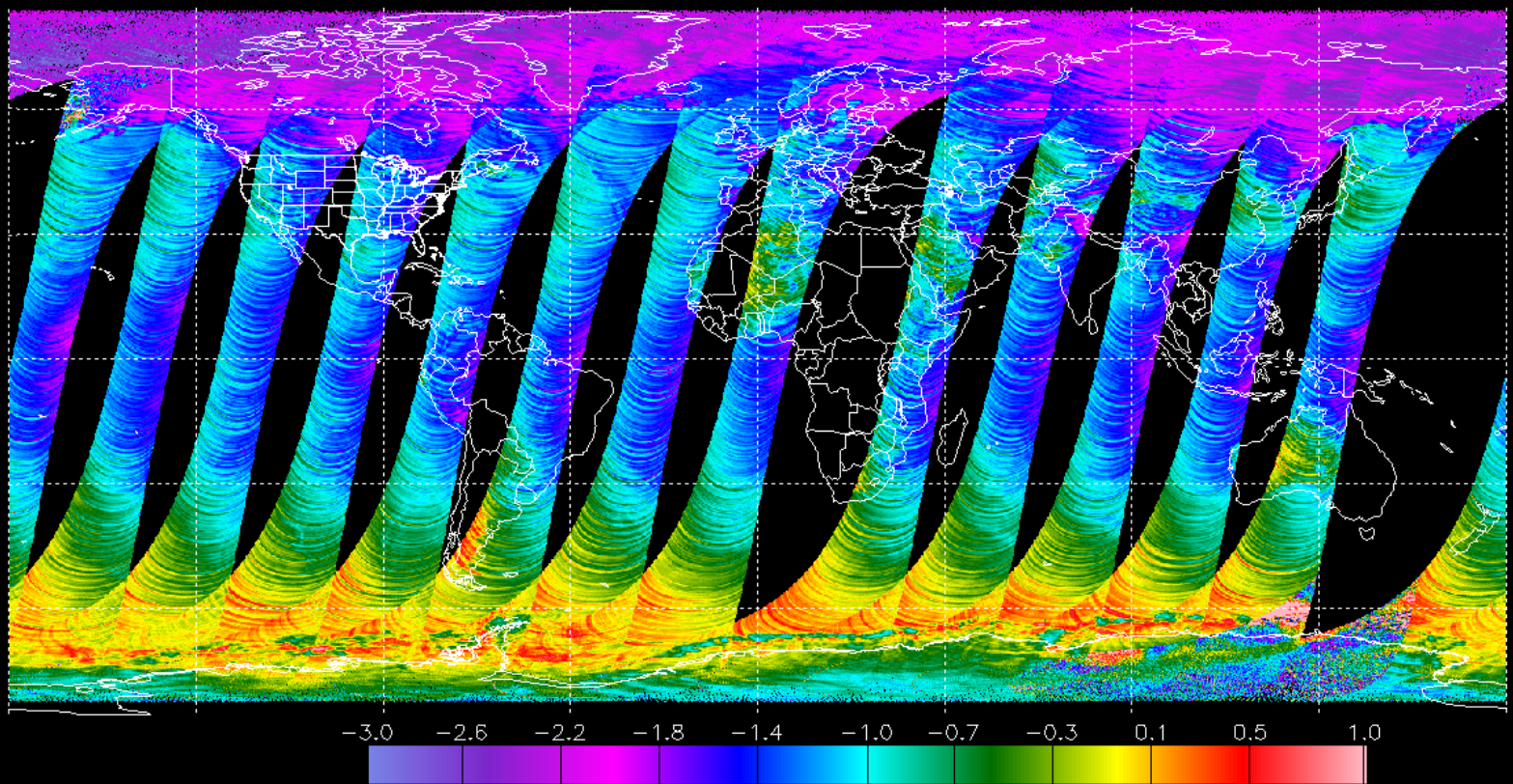


10H

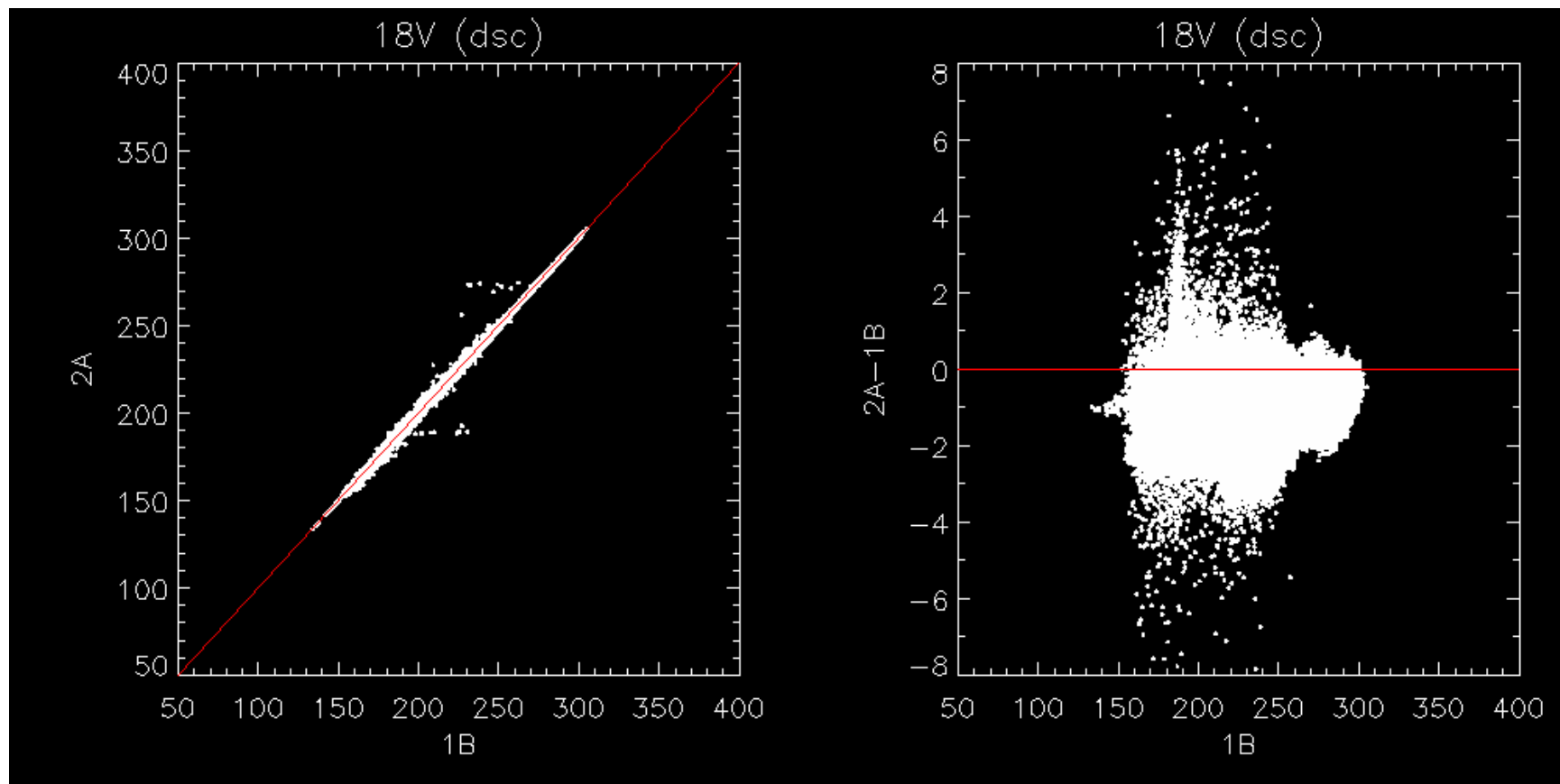


18V

18v (dsc)

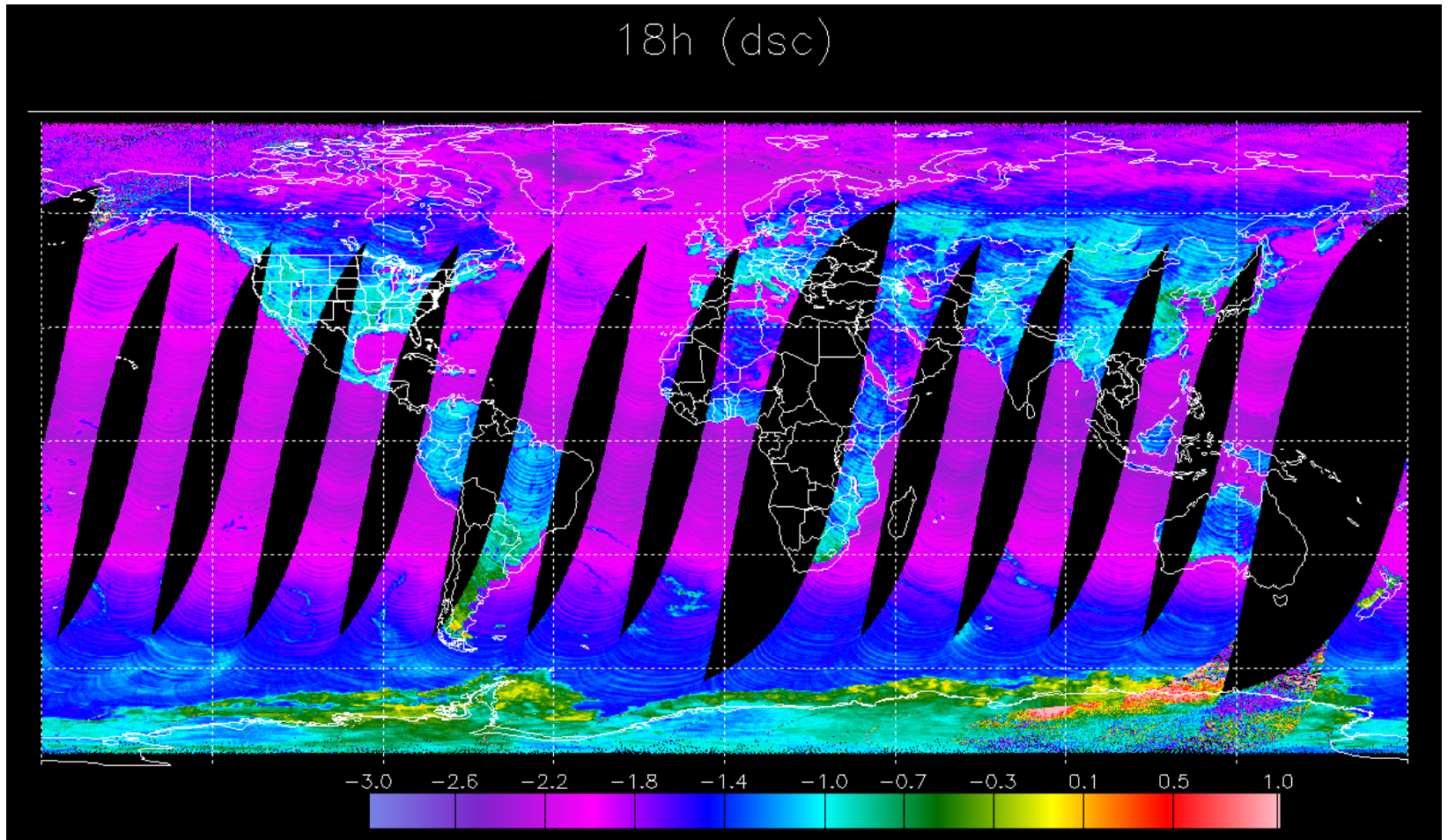


18V

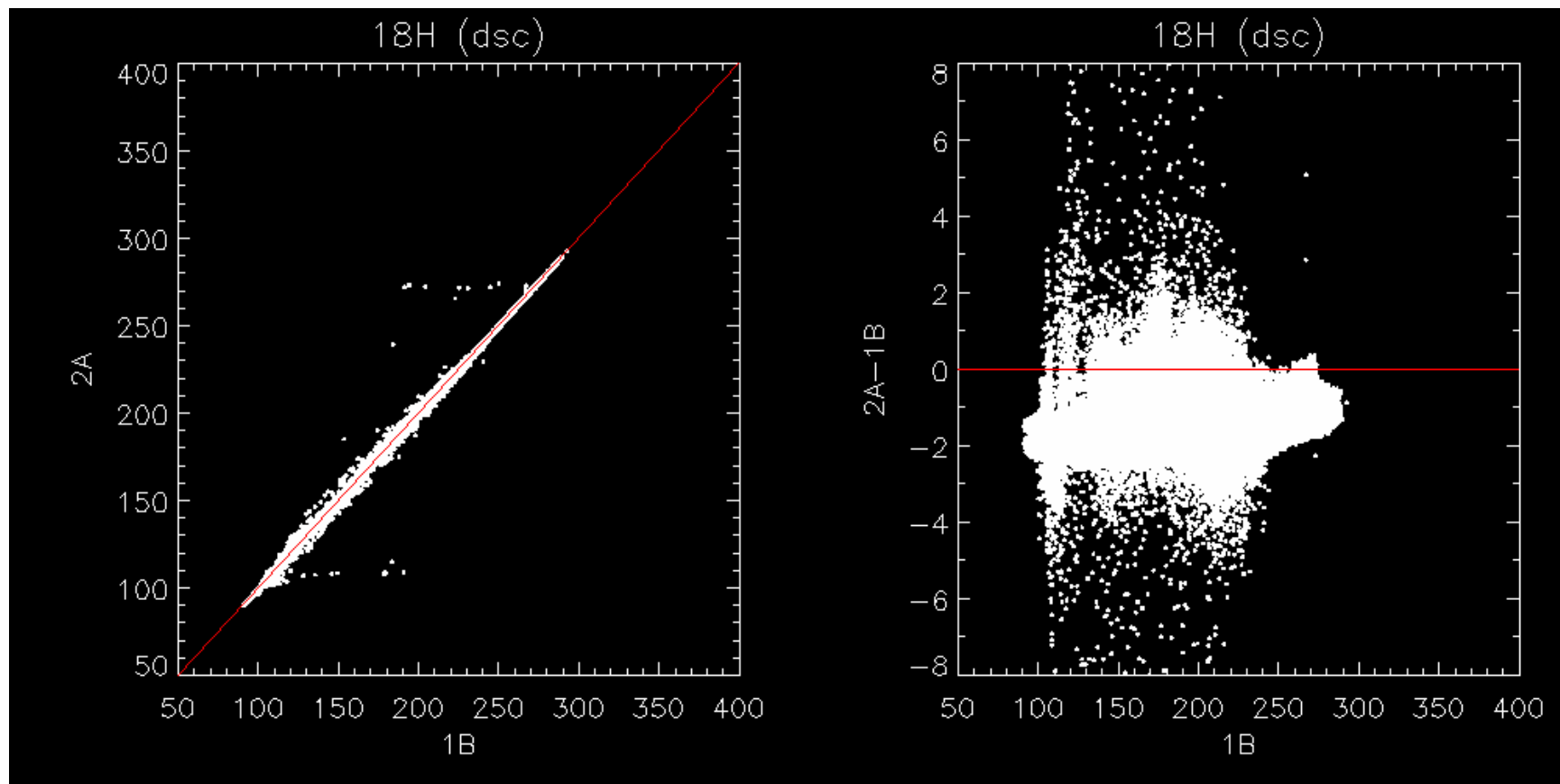


18H

18h (dsc)

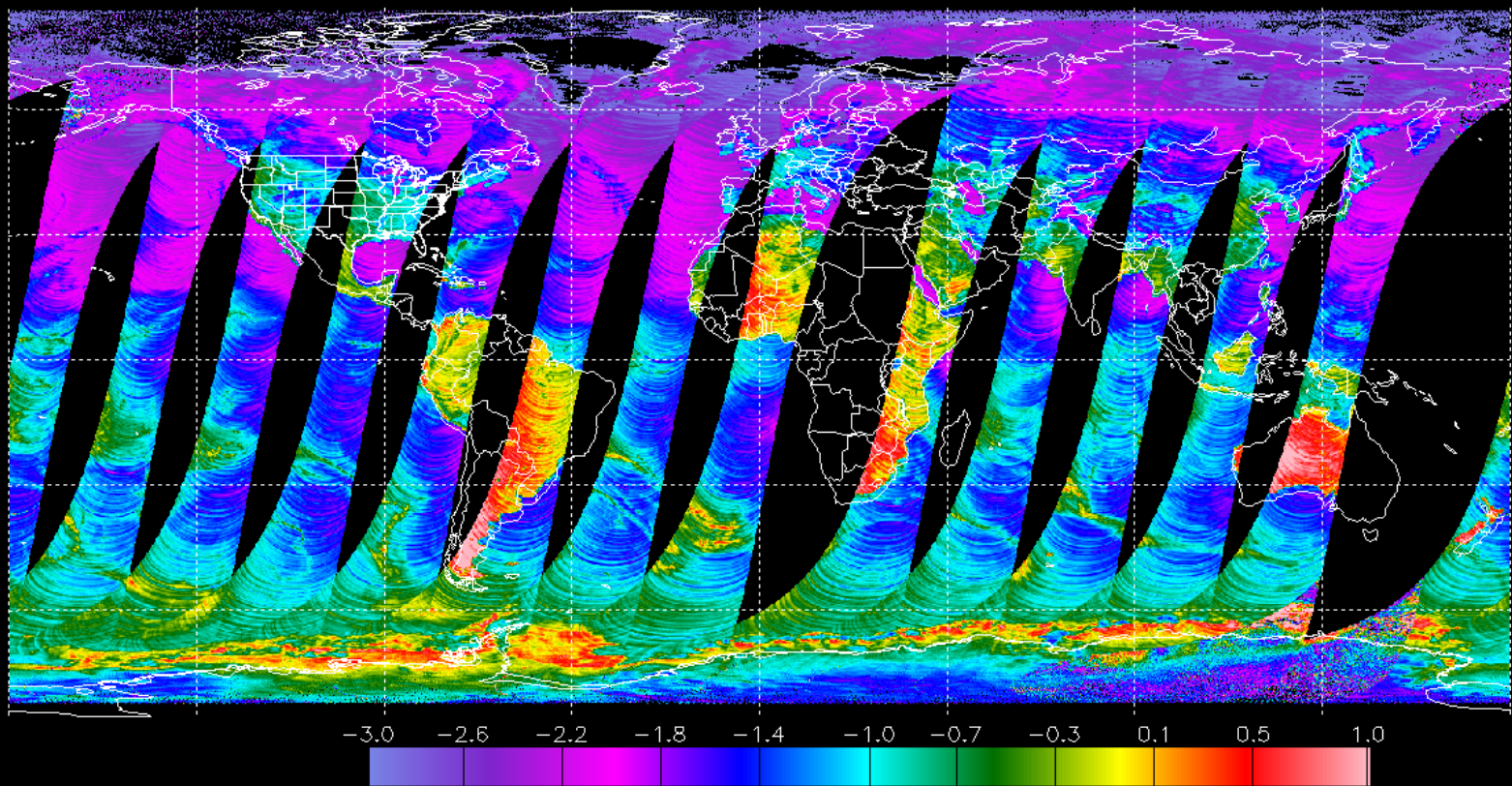


18H

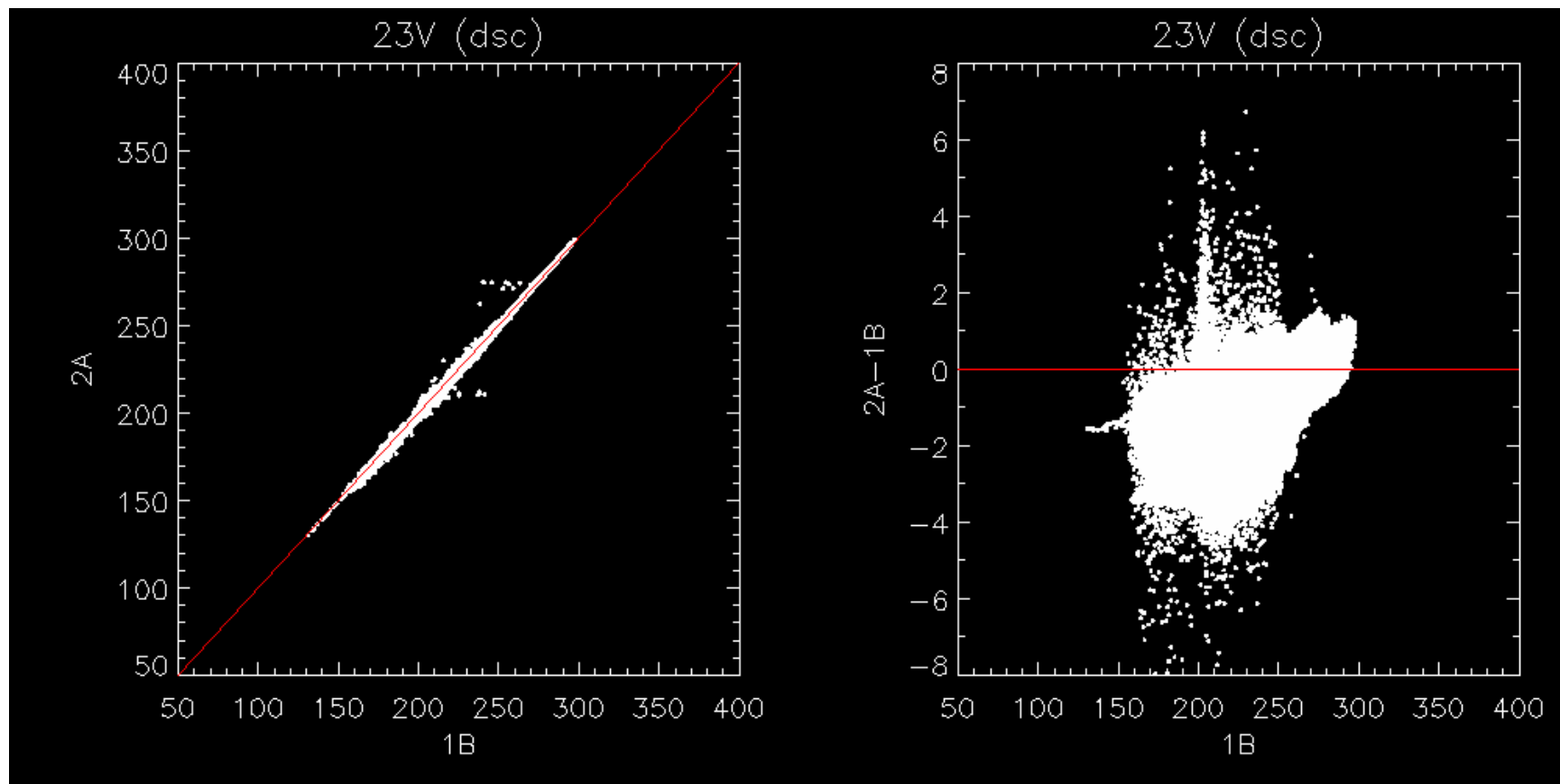


23V

23v (dsc)

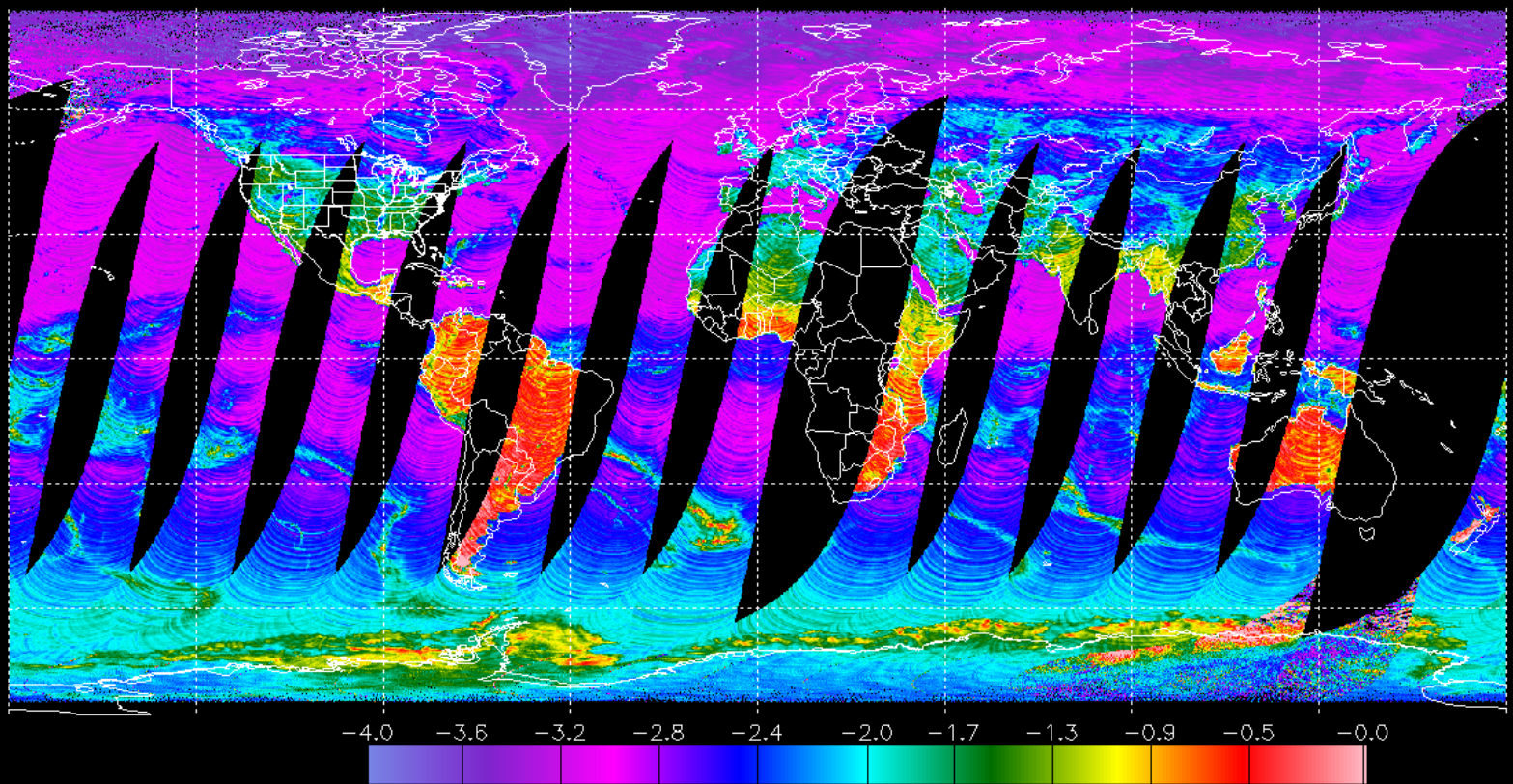


23V

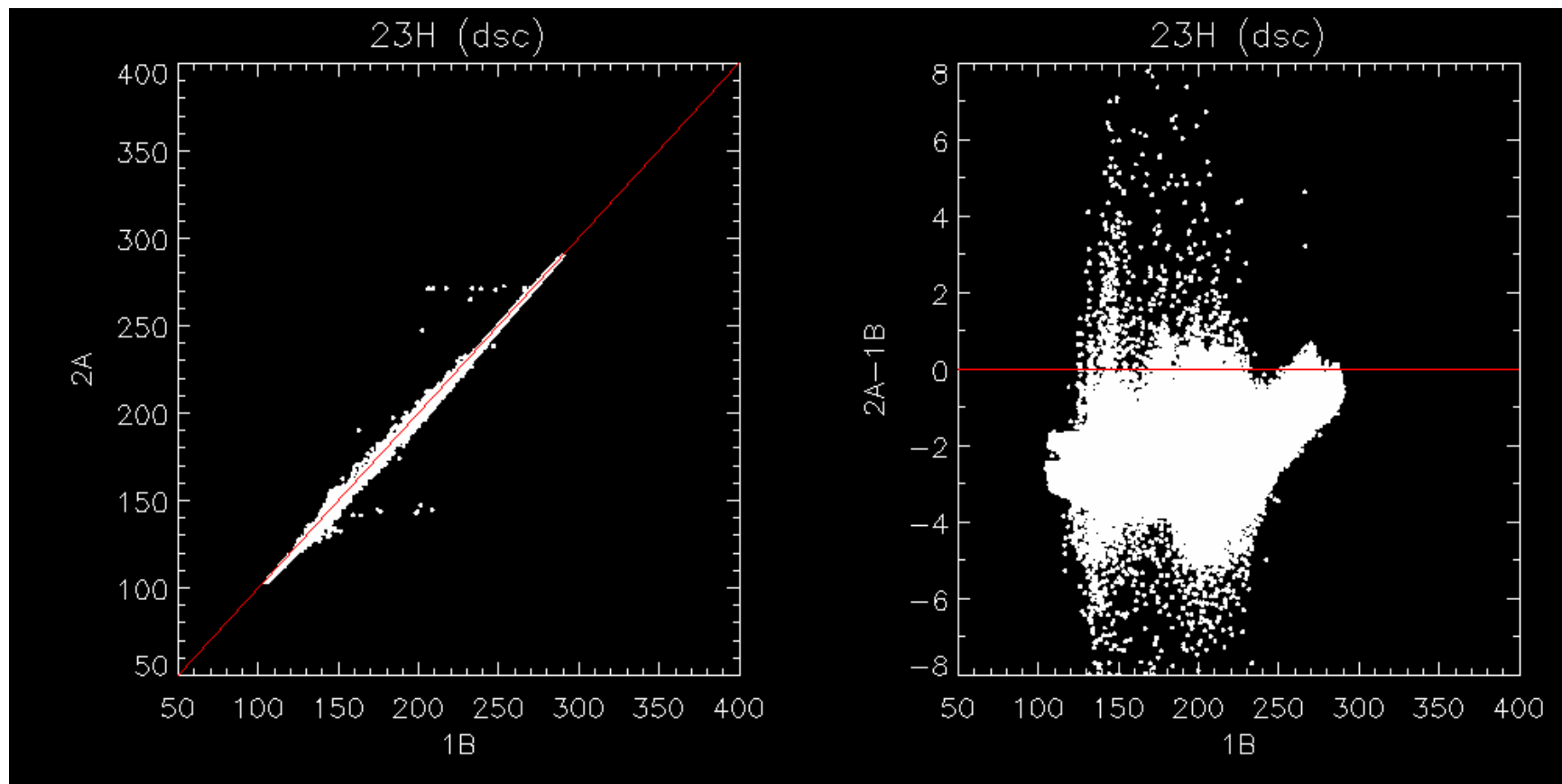


23H

23h (dsc)

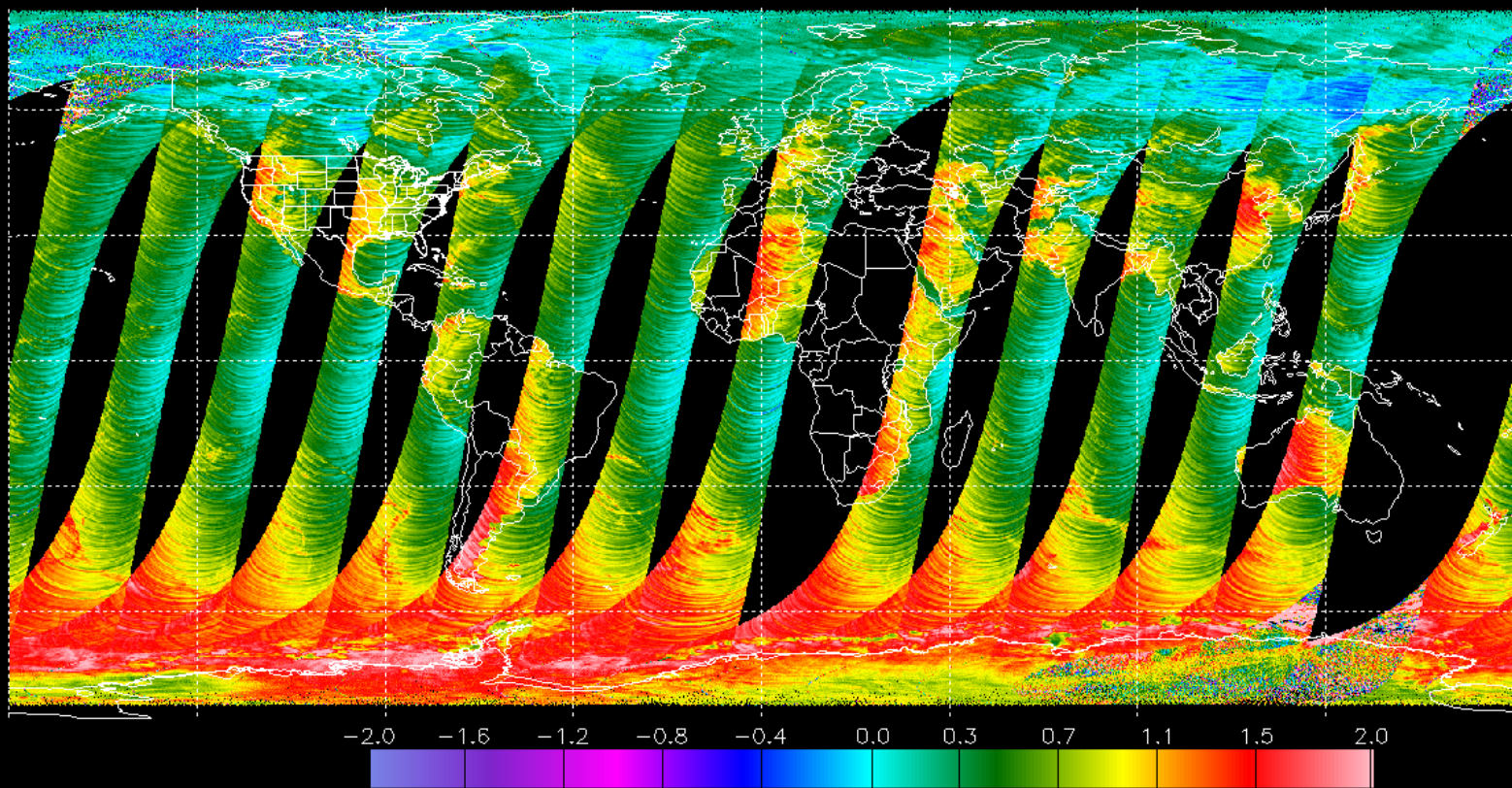


23H

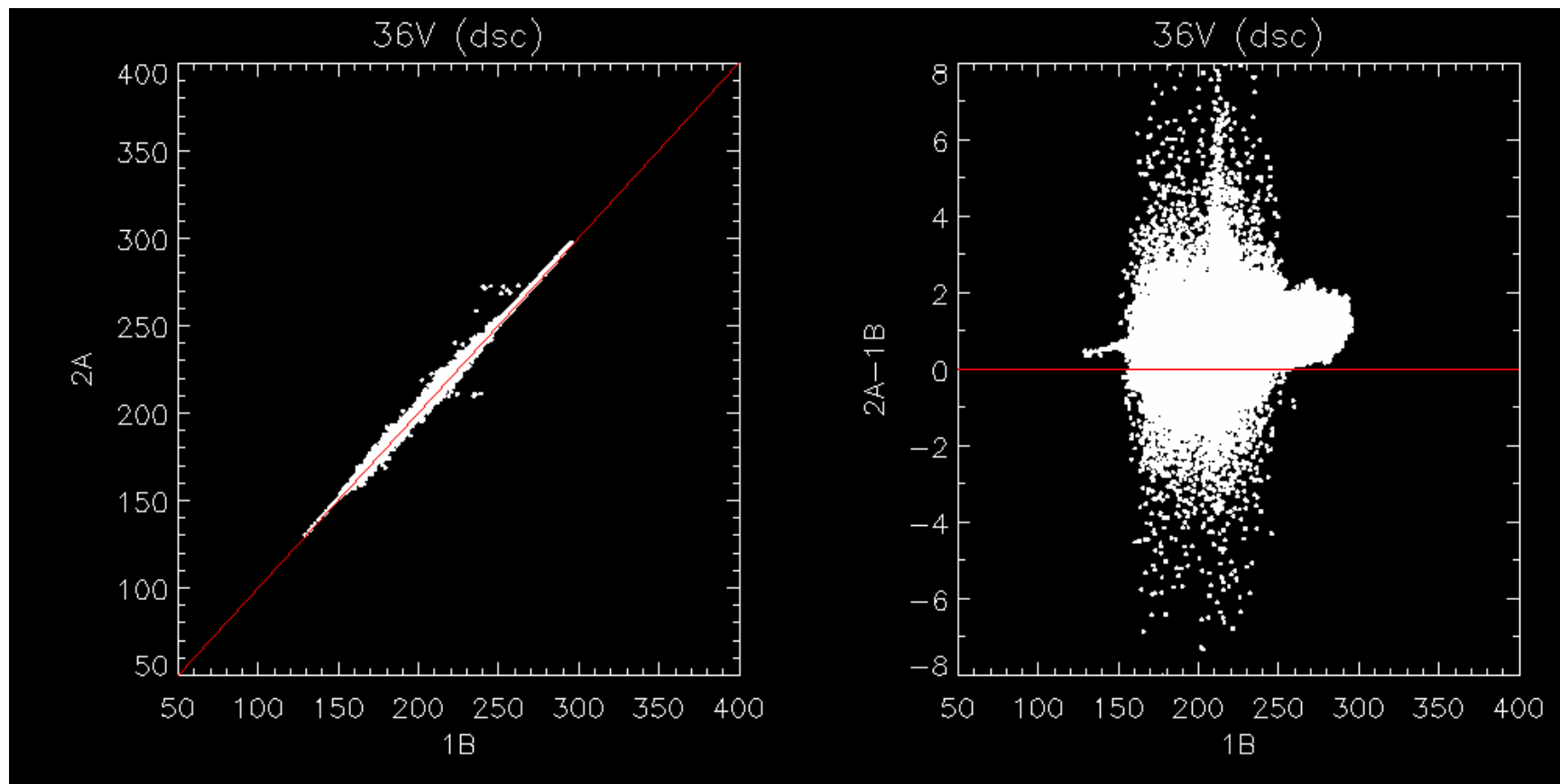


36V

36v (dsc)

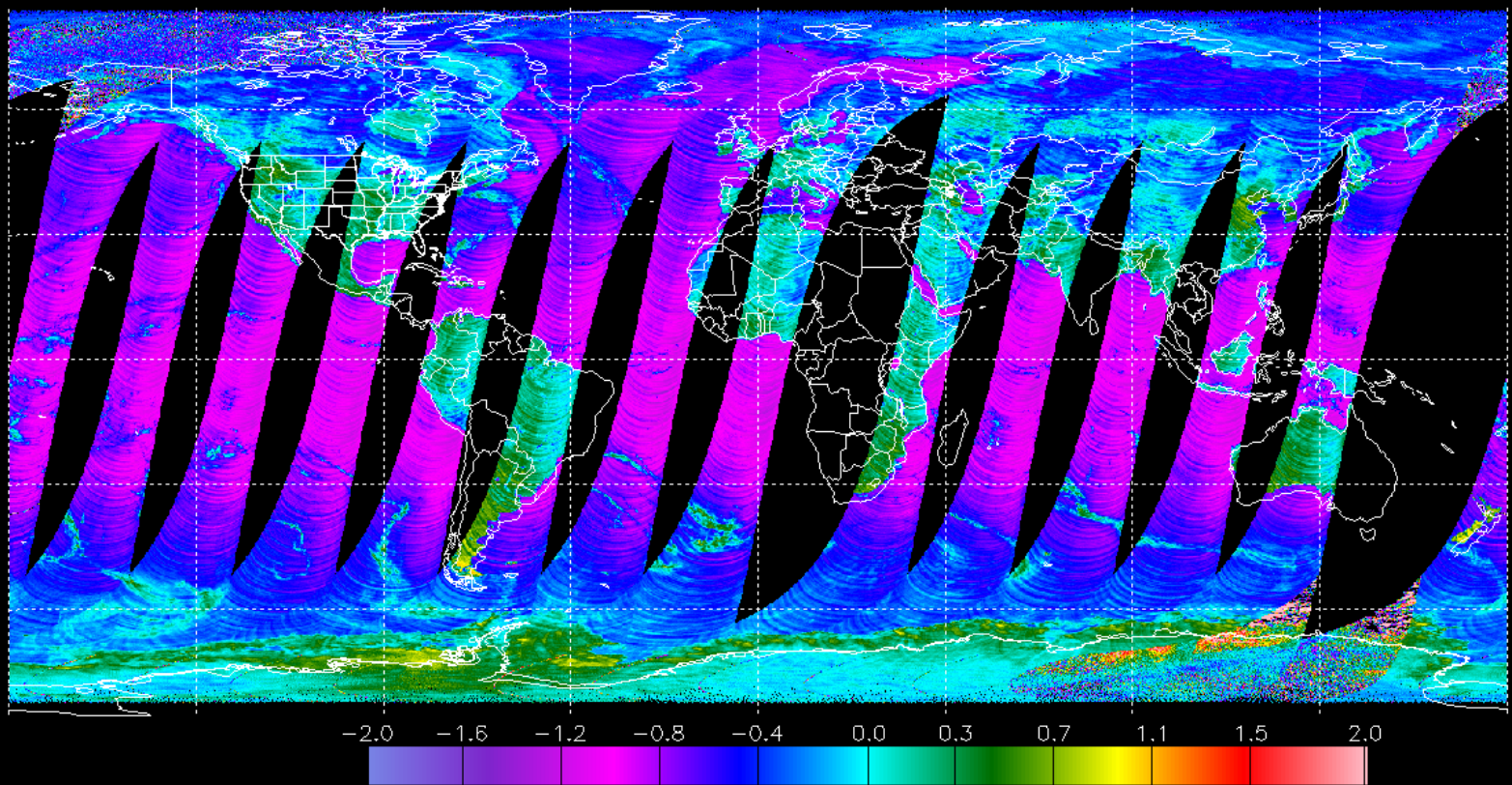


36V

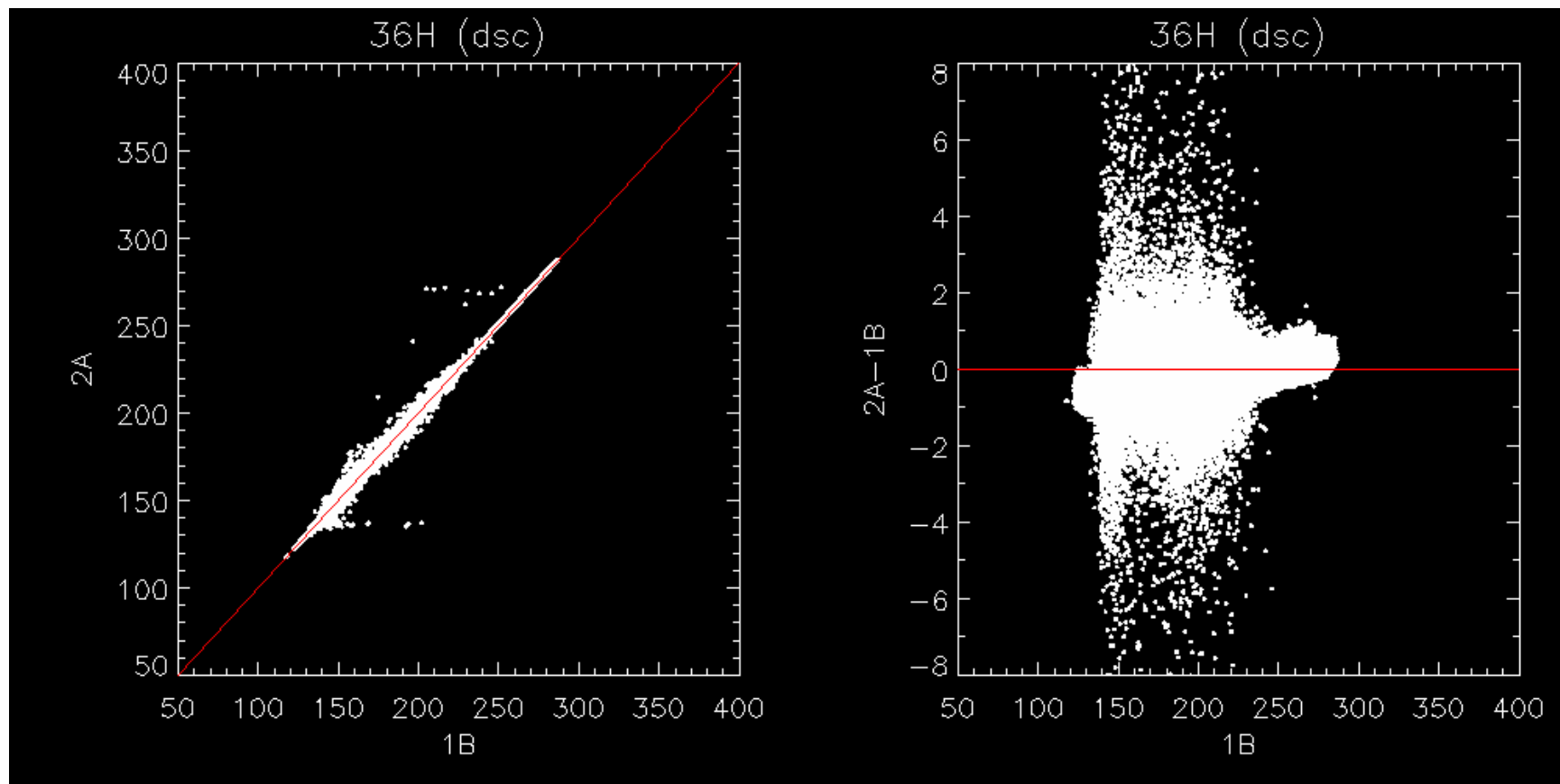


36H

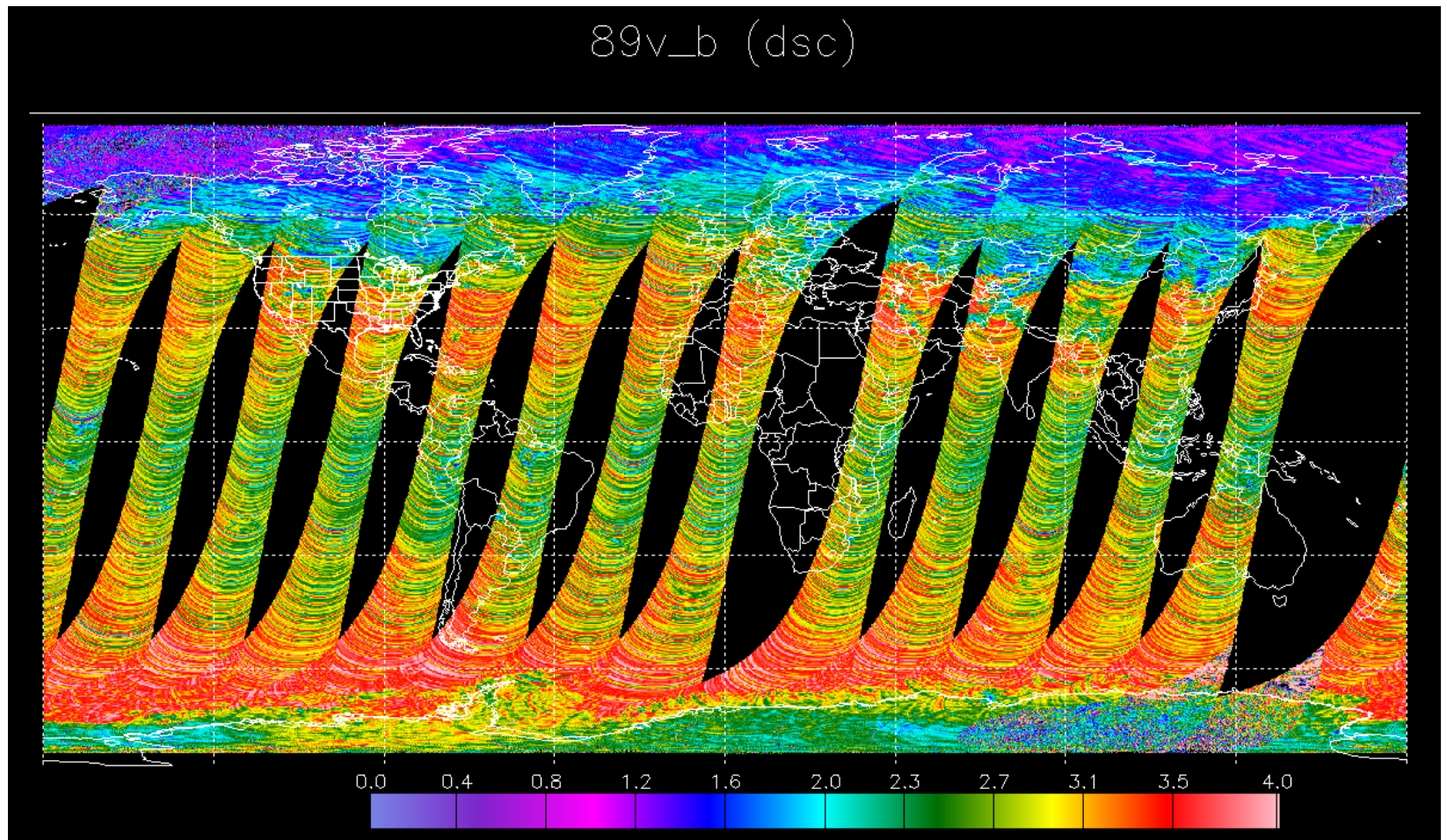
36h (dsc)



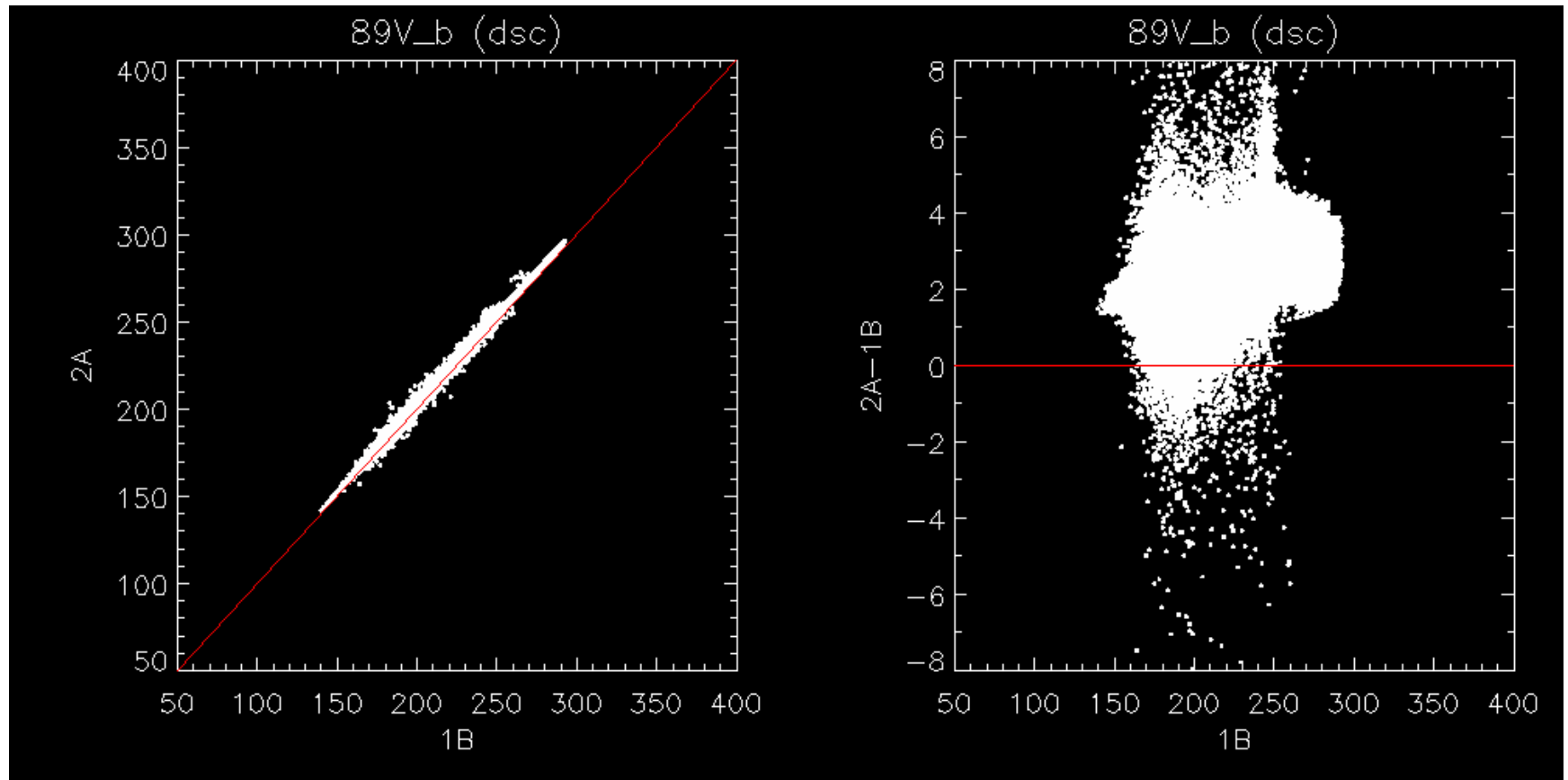
36H



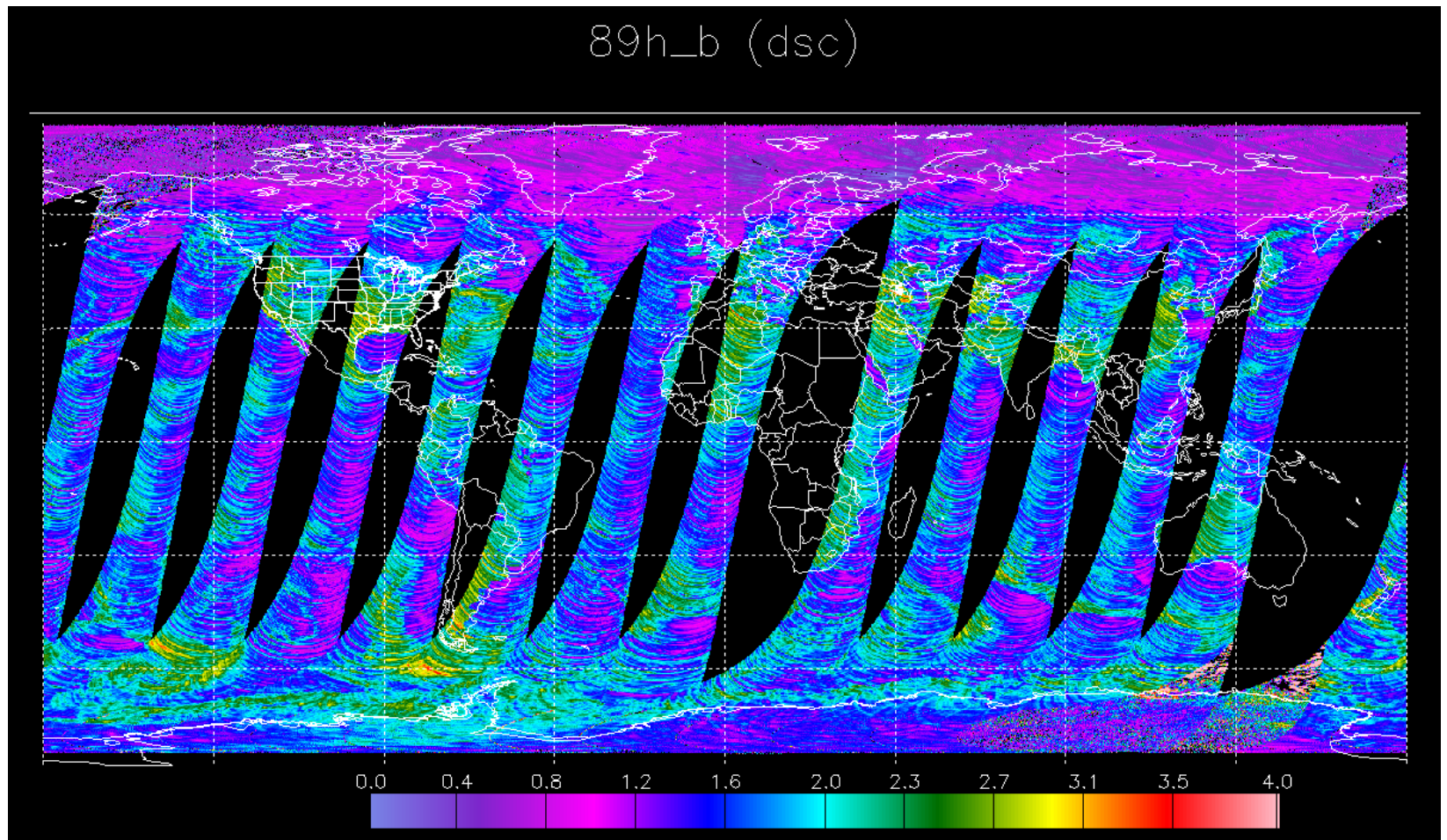
89V (b)



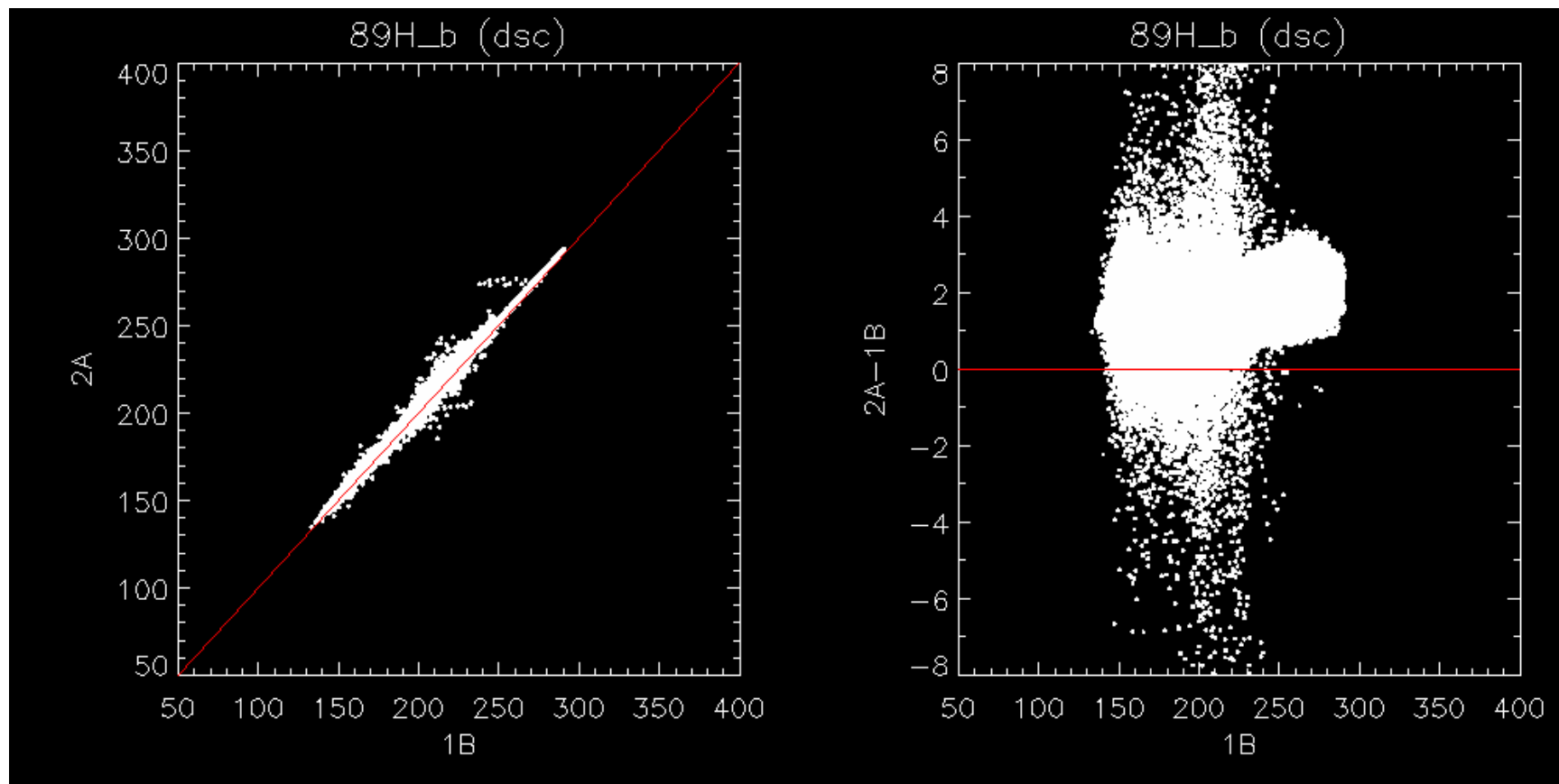
89V (b)



89H (b)



89H (b)



Summary

- RSS cooler than JAXA in all channels except 36v and 89 (on order of 1 deg)
- Scan striping in data set differences (period of ~ 10 scans)
- Scan-to-scan variation is same in both data sets
- Some cross-scan position differences
- Some non-linear differences at higher Tbs